

# EVOTEC

## Fume and Dust Extraction

### FEX 5000 PRO



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**INNOVATIVE  
EXTRACTION TECHNOLOGY**



# Mobile fume extraction FEX 5000 PRO

EVOTEC



FEX 5000 PRO.1/.2



FEX 5000 PRO.3/.4

- Powerful, process-adaptable extraction system for extracting fume, fumes, or airborne dust
- Powerful EC or medium-pressure blowers, suitable for continuous operation (24/7), large air volume
- Modern control technology with device status display and filter notifications (PRO.1/.2)
- Reliable filtration through a multi-stage combination filter system
- **Optional:** EX-protected according to ATEX Zone 22 or ESD version

## Versions:



W3	ISO 21904-1 $\eta \geq 99\%$	W3
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## Powerful extraction system for extracting fume, soldering fumes, vapors, or airborne dust.

High quality standards – suitable for **3-shift operation**.

Convenient filter replacement through **cassette system** with individually removable filter cassettes.

**Reliable filtering** of airborne particles through the use of a multi-stage combination filter system. Optional activated carbon content in the main filter reduces odors in the exhaust air. **For extraction of laser fume, welding and soldering fumes, cutting fume as well as various vapors and solvents.**

**Continuous-duty EC or medium-pressure blowers** for extracting large air volumes to capture airborne dust.

**Suction connection on top for extraction via hose or extraction arm.**

### PRO.1/ .2:

Easily and conveniently adaptable to individual requirements via **intuitive control panel**. Clear graphic display and large, multi-colored LEDs for a quick **overview of device status** or settings.

### PRO.3/ .4:

**Standard:** Motor protection switch incl. remote ON/OFF

**Upgrade:** Frequency converter for stepless speed control as well as increased efficiency and performance of the turbine. Remote on/off control included.

Vacuum gauge for filter monitoring.

### Standard version:

Initial filter equipment set consisting of:

- Particulate filter E10
- Particulate filter H14

### Upgrade: EX protection ATEX Zone 22:

Designed for safe extraction in Zone 22 through electrostatically dissipative device equipment and components. Initial filter equipment set (with grounding lug) consisting of:

- Expanded metal filter
- Particulate filter E10
- Particulate filter H14
- 

**Upgrade: W3-compliant version** suitable for recirculating and exhaust air operation, including exhaust diffuser and expanded metal filter as spark arrestor to prevent fire hazards. Initial filter equipment set consisting of:

- Expanded metal filter
- Particulate filter E10
- Particulate filter H14

**Upgrade: ESD version** with ESD powder coating and ESD rollers. Initial filter equipment set consisting of:

- Particulate filter E10
- Particulate filter H13/H14



# Technical data

Model		FEX 5000 PRO.1	FEX 5000 PRO.2	FEX 5000 PRO.3	FEX 5000 PRO.4
Voltage at 50/60 Hz.	Volt	230 ***)		400	
Motor power	Watt	2 x 1.100	2 x 1.400	1.500	2.200
Max. air volume in operating condition *):					
with 3m suction hose Ø 100	m³/h	800	1.200	1.000	1.200
with 3m suction hose Ø 150	m³/h	900	1.650	1.700	1.900
with 3m suction hose Ø 200	m³/h	1.000	1.750	1.900	2.200
Max. negative pressure in operating condition *)	Pa	9.000	5.000	3.300	3.800
1st filter stage particulate filter E10	m²	19			
2nd filter stage particulate filter H14	m²	20			
Alternative 2nd filter stage: AK adsorption filter	kg	2 x 12,5			
Max. air volume <i>turbine output at free outlet</i>	m³/h	1.100	1.900	2.200	2.500
Maximum negative pressure <i>at the closed intake nozzle</i>	Pa	10.000	6.000	3.500	4.000
Sound pressure level <i>(depending on power setting)</i>	dB(A)	51 - 65	56 - 70	72	72
Weight	kg	230			
Dimensions L x W x H	mm	1.000 x 785 x 1.280		1.000 x 785 x 1.460	
Suction connection Ø	mm	200 (optional 100 or 150)			
Exhaust connection Ø	mm	200			
Recirculated air		Silencer with exhaust diffuser			
Protection class		IP 54 (when exhaust air is connected)			
Operating temperature	°C	5 - 40			
Operating humidity (non-condensing)	%	10 - 90			
Color		RAL 7035			
Housing		Steel, powder-coated			
<b>Standard version</b>	<b>Art. No.</b>	<b>710-2030</b>	<b>710-2031</b>	<b>710-2040</b>	<b>710-2041</b>
<b>Upgrade: Frequency converter</b>	<b>Art. No.</b>	<b>x</b>	<b>x</b>	<b>053-4008</b>	<b>053-4009</b>
<b>Upgrade: EX-protected</b>	<b>Art. No.</b>	<b>054-8052</b>			
<b>Upgrade: W3 version recirculated air/exhaust air **)</b>	<b>Art. No.</b>	<b>054-4015</b>		<b>054-4013</b>	
<b>Upgrade: ESD version</b>	<b>Art. No.</b>	<b>054-8053</b>			

\*) **Operating data** including standard filter equipment in factory condition without further options such as activated carbon filter, spark trap, piping, etc. The effective performance depends on the respective operating point, which is determined by power setting, pipe dimension (Ø, length), and capture at the intake point is determined.

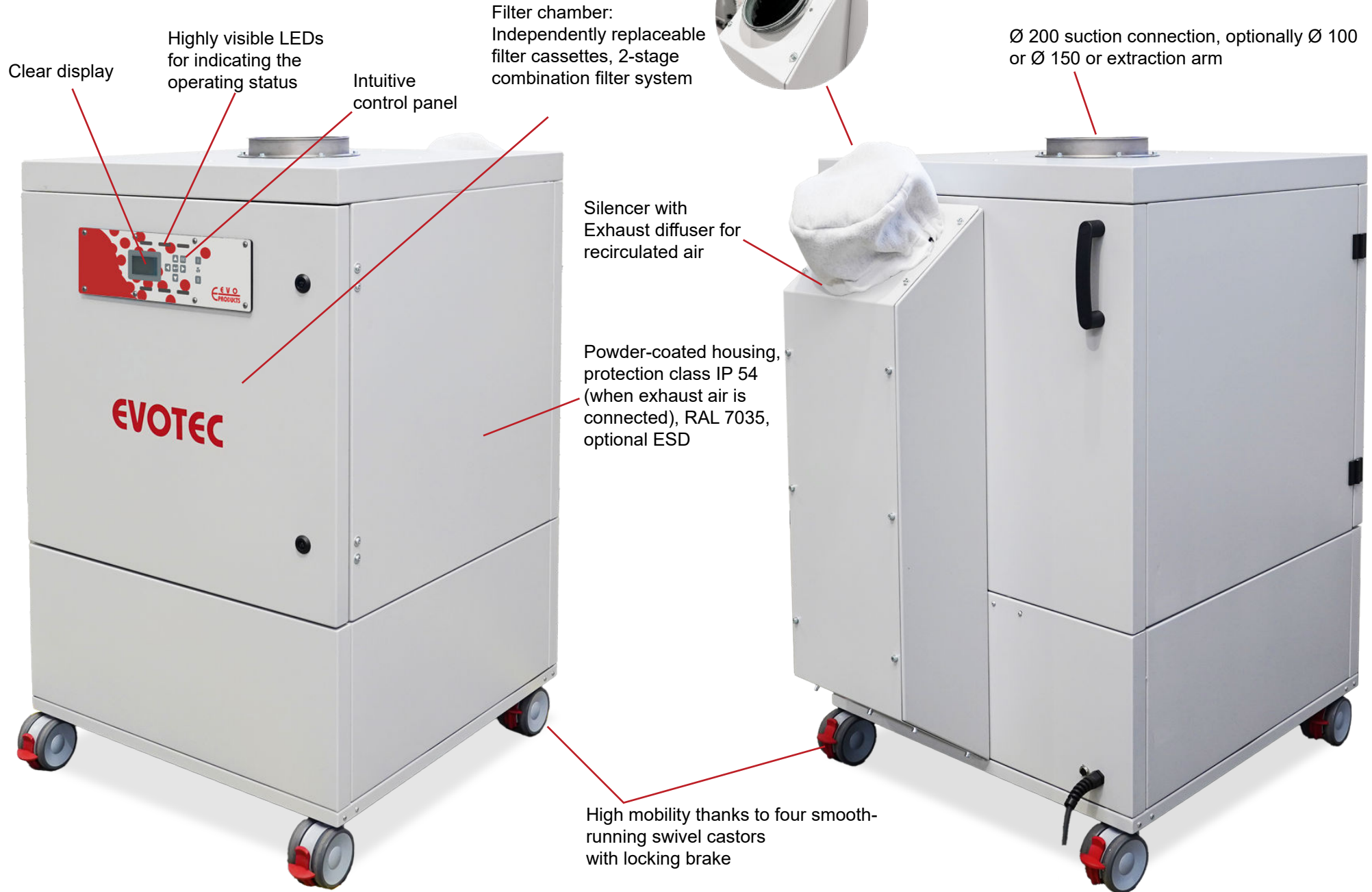
\*\*\*) For recirculated air operation, country-specific requirements must be checked

\*\*\*) Other voltages on request

# FEX 5000 PRO.1 and PRO.2

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**Alternatively:**  
Exhaust air connection Ø 200  
(Lindab)



Clear display

Highly visible LEDs  
for indicating the  
operating status

Intuitive  
control panel

Filter chamber:  
Independently replaceable  
filter cassettes, 2-stage  
combination filter system



Ø 200 suction connection, optionally Ø 100  
or Ø 150 or extraction arm

Silencer with  
Exhaust diffuser for  
recirculated air

Powder-coated housing,  
protection class IP 54  
(when exhaust air is  
connected), RAL 7035,  
optional ESD

High mobility thanks to four smooth-  
running swivel castors  
with locking brake

# FEX 5000 PRO.3 and PRO.4

**Alternatively:**  
Exhaust air connection  
Ø 200  
(Lindab)

**EVOTEC**

Ø 200 suction connection, optionally Ø 100  
or Ø 150 or extraction arm

Negative pressure manometer for  
indicating the filter condition

**W3 upgrade:** Indicator light  
signals undershooting of the  
minimum volume flow

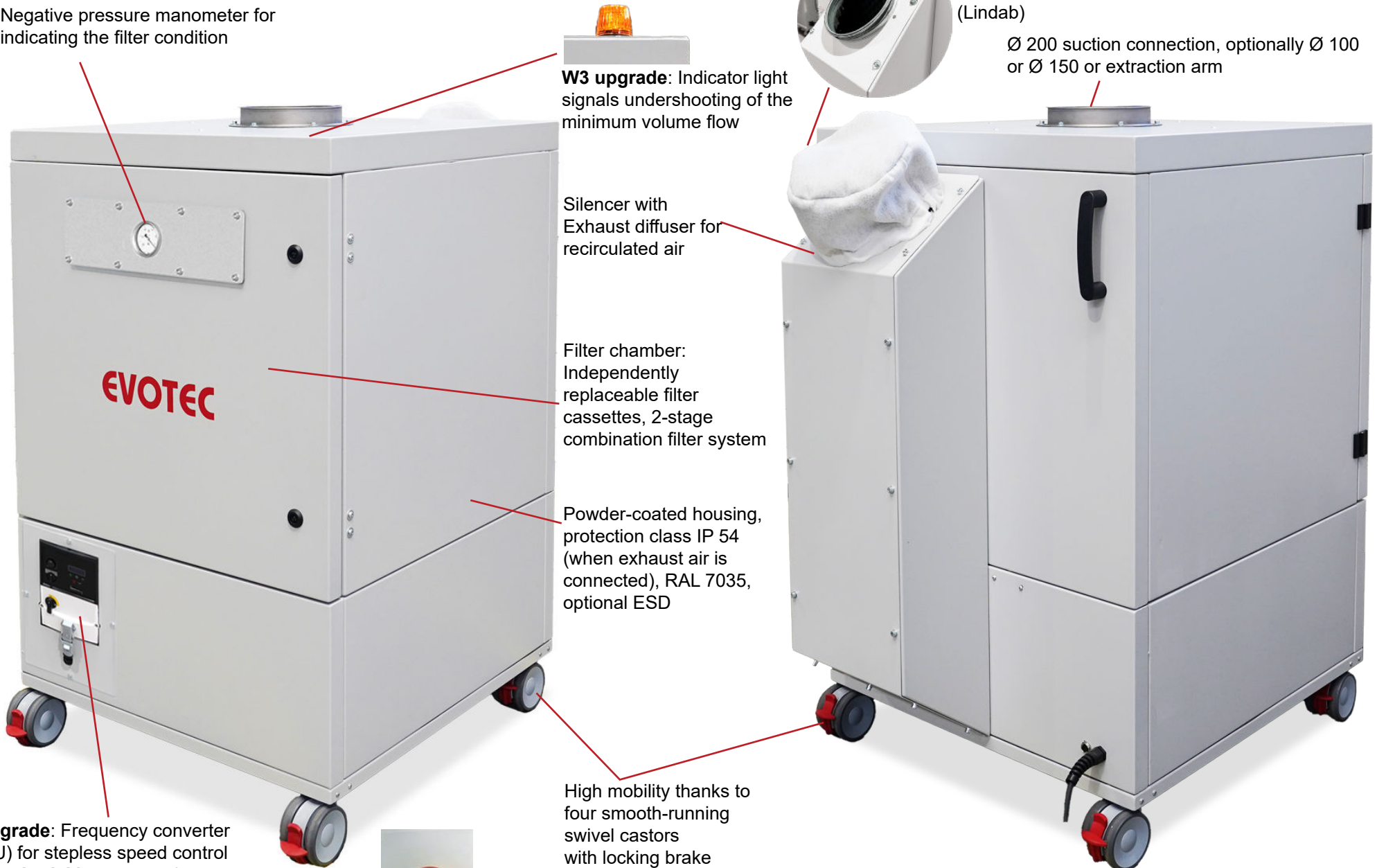
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connected), RAL 7035,  
optional ESD

High mobility thanks to  
four smooth-running  
swivel castors  
with locking brake

**Upgrade:** Frequency converter  
(FU) for stepless speed control  
**Standard:** Motor protection  
switch (MS)



# FEX 5000 for extraction of gases and odors

**EVOTEC**

## Special activated carbon version

Configuration example: **Motor usable in Zone 1 and 2**, without further electronic components. Connection cable open end for customer-side connection to the system. For extraction and filtration of gases, e.g. isopropanol.

Please feel free to contact us regarding your application.

### 1st filter stage:

Activated carbon  
cartridge filter

### 2nd filter stage:

Suspended particle filter:  
Storage filter E10 or H13  
in metal frame

Recirculation mode



# Control technology FEX 5000 PRO.1 and .2

**EVOTEC**

High-performance extraction technology requires optimally matched control systems. For this reason, our FEX series is equipped with a **configurable control unit** that can be **precisely adapted** to your extraction process. Operation is carried out via a **clear and intuitive control panel**.

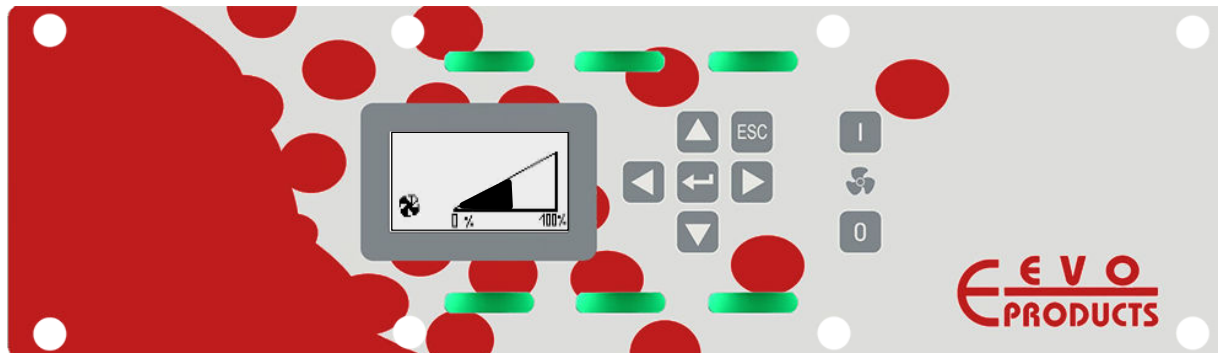
- A test routine for the motor, buttons, LEDs and more ensures comprehensive functionality for maximum safety.
- A wide range of fault notifications and filter status messages – displayed with pictograms and error codes.
- Error logging for traceability – enabling the best possible service.
- Filter fill level displayed in real time – individually for each filter.
- Different user roles with varying permission levels and individual passwords.
- Real-time fill level display, individually adjustable to your conveyed material – for maximum accuracy.
- Individually adjustable run-on time to ensure the highest possible extraction rate.
- Alarm configuration according to the relevance within your extraction process.

## **Connection for remote ON/OFF control (remote control).**

Connection to external controllers or devices:  
8-pin connector socket enabling remote ON/OFF switching. Operating status and fault signals can be transmitted either potential-free or with 24 V.  
The matching mating connector is available as an accessory.

## **Upgrade (072-0618): Gas- and Particle Sensor**

- Detects filter breakthrough and can initiate immediate shut-down if required.
- Sensitivity configurable in the user menu (sensor service life: 1 year).
- Test function to ensure reliable functionality.



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# Filter technology

**EVOTEC**

Two independently replaceable cassette filters  
MDF frame, completely incinerable

**Filter stage 1**, suspended particle filter: E10, filter area 19 m<sup>2</sup>

**In the EX upgrade:**

Expanded metal filter for ensuring conductivity, suspended particle filter E10, equipped with grounding wire for use in ATEX Zone 22.

**Filter stage 2**, suspended particle filter: H14, filter area 20 m<sup>2</sup>

**Alternative filter stage 2**, adsorption filter: 2 x 12.5 kg activated carbon

**In the W3 upgrade:**

Including spark protection mesh to prevent fire hazard



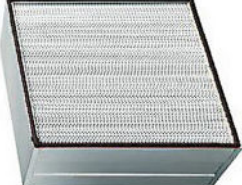



The filters used comply at least with the dust class specified on the outside of the device. **This must be observed when changing the filter.**

User-friendly, low-contamination filter change.

All cassettes with a box height of 292 mm can be combined with each other. Note: Activated carbon cassettes have only half the height (145 mm) due to their weight, so 2 pieces are required. In filter boxes with free internal height, additional filter mats or expanded metal filters can also be inserted.



## Accessories & options

Filter technology FEX 5000 PRO		Filter technology FEX 5000 PRO	
	<p><b>Suspended particle filter in MDF frame</b></p> <p>Foamed gasket, fiberglass filter material, 19.5 m<sup>2</sup> filter area, height 292 mm, handles Free internal height = 60 mm</p> <p>Class E10 <b>074-20103</b> Class H14 <b>074-20104</b></p>		<p><b>Adsorption filter AK filling</b></p> <p>Metal frame with foamed gasket, Activated carbon filling 21 kg, perforated sheet as Handle protection, height 292 mm <i>Change in operating air volume – 400/500 m<sup>3</sup>/h</i></p> <p>Activated carbon 4 mm <b>074-20117-40</b></p>
	<p><b>Suspended particle filter in metal frame</b></p> <p>Frame galvanized steel with foamed gasket, fiberglass filter material, 19.5 m<sup>2</sup> filter area, height 292 mm, Free internal height = 60 mm</p> <p>Class E10 <b>074-20105</b> Class H14 <b>074-20106</b></p>		<p><b>DDMU differential pressure transmitter</b></p> <p>For monitoring the negative pressure and the filter conditions</p> <p>For FEX 5000 PRO.3/ .4 <b>054-60486</b></p>
	<p><b>G4 fleece mat</b></p> <p>550 x 550 mm, height 22 mm, can be used as an additional pre-filter in filter cassettes with free internal height.</p> <p>3 pieces <b>074-20110</b></p>		
	<p><b>Adsorption filter AK filling</b></p> <p>MDF frame with foamed gasket, Activated carbon filling 12.5 kg, handle protection, Height 145 mm 2 pieces are required per device! <i>Change in operating air volume – 400/500 m<sup>3</sup>/h</i></p> <p>Activated carbon 7 mm <b>074-20119-70</b></p>		

## Accessories & options





### Spark arrestors FEX 5000 PRO

	<p><b>Spark trap with metal knit insert</b> prevents the suction of sparks. For integration into pipe system. Easy handling thanks to quick-release clamps. (Fig. shows version in 315 mm) Ø connection:</p> <table border="0"> <tr> <td>Ø 150 mm</td> <td><b>072-0630</b></td> </tr> <tr> <td>Ø 200 mm</td> <td><b>072-0638</b></td> </tr> <tr> <td>Ø 250 mm</td> <td><b>072-0639</b></td> </tr> <tr> <td>Ø 315 mm</td> <td><b>072-0643</b></td> </tr> </table>	Ø 150 mm	<b>072-0630</b>	Ø 200 mm	<b>072-0638</b>	Ø 250 mm	<b>072-0639</b>	Ø 315 mm	<b>072-0643</b>				
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Ø 315 mm	<b>072-0643</b>												
	<p><b>Matching metal knit insert</b> for spark traps</p> <table border="0"> <tr> <td>Running meter</td> <td><b>072-10032</b></td> </tr> <tr> <td>Pre-wound:</td> <td></td> </tr> <tr> <td>Ø 150 mm</td> <td><b>072-0630-01</b></td> </tr> <tr> <td>Ø 200 mm</td> <td><b>072-0638-01</b></td> </tr> <tr> <td>Ø 250 mm</td> <td><b>072-0639-01</b></td> </tr> <tr> <td>Ø 315 mm</td> <td><b>072-0643-01</b></td> </tr> </table>	Running meter	<b>072-10032</b>	Pre-wound:		Ø 150 mm	<b>072-0630-01</b>	Ø 200 mm	<b>072-0638-01</b>	Ø 250 mm	<b>072-0639-01</b>	Ø 315 mm	<b>072-0643-01</b>
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	<p><b>Spark trap</b> (up to approx. 1200 m<sup>3</sup>/h air volume) prevents the suction of sparks into the vacuum. The sparks are deflected by the air deflection against the copper plates and are extinguished. Through the removable inspection plate, the spark trap can be cleaned.</p> <table border="0"> <tr> <td>Ø 80 mm</td> <td><b>053-4000</b></td> </tr> <tr> <td>Ø 150 mm</td> <td><b>053-4001</b></td> </tr> </table>	Ø 80 mm	<b>053-4000</b>	Ø 150 mm	<b>053-4001</b>								
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	<p><b>Expanded metal filter</b> as a spark arrester to prevent fire hazard, 545 x 545 mm, height 15 mm, suitable for filters with free internal height</p> <table border="0"> <tr> <td>1 piece</td> <td><b>074-20109</b></td> </tr> </table> <p><i>Standard in W3 version or with ATEX upgrade.</i></p>	1 piece	<b>074-20109</b>										
1 piece	<b>074-20109</b>												


### Hoses FEX 5000 PRO



	<p><b>Exhaust air or extraction hose PUR</b></p> <p>Can be used as an exhaust air, extraction, or connecting hose, chemical-resistant and suitable for food contact, electrostatically dissipative when the spiral is grounded.</p> <p>(Illustration: optionally available with wire clamp and hose connector)</p> <p>Per meter:</p> <table border="0"> <tr> <td>Ø 80 mm</td> <td><b>052-0323</b></td> </tr> <tr> <td>Ø 100 mm</td> <td><b>052-0325</b></td> </tr> <tr> <td>Ø 120 mm</td> <td><b>052-0328</b></td> </tr> <tr> <td>Ø 125 mm</td> <td><b>052-0332</b></td> </tr> <tr> <td>Ø 150 mm</td> <td><b>052-0326</b></td> </tr> <tr> <td>Ø 160 mm</td> <td><b>052-0329</b></td> </tr> <tr> <td>Ø 200 mm</td> <td><b>052-0330</b></td> </tr> </table>	Ø 80 mm	<b>052-0323</b>	Ø 100 mm	<b>052-0325</b>	Ø 120 mm	<b>052-0328</b>	Ø 125 mm	<b>052-0332</b>	Ø 150 mm	<b>052-0326</b>	Ø 160 mm	<b>052-0329</b>	Ø 200 mm	<b>052-0330</b>
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	<p><b>Exhaust air or extraction hose, PUR antistatic black</b></p> <p>Can be used as an exhaust air, extraction, or connection hose, throughput and surface resistance &lt; 109 ohms</p> <p>Per meter:</p> <table border="0"> <tr> <td>Ø 80 mm</td> <td><b>072-10011</b></td> </tr> <tr> <td>Ø 100 mm</td> <td><b>072-10035</b></td> </tr> <tr> <td>Ø 120 mm</td> <td><b>072-10036</b></td> </tr> <tr> <td>Ø 125 mm</td> <td><b>072-10039</b></td> </tr> <tr> <td>Ø 150 mm</td> <td><b>072-10037</b></td> </tr> <tr> <td>Ø 160 mm</td> <td><b>072-10040</b></td> </tr> <tr> <td>Ø 200 mm</td> <td><b>072-10038</b></td> </tr> </table>	Ø 80 mm	<b>072-10011</b>	Ø 100 mm	<b>072-10035</b>	Ø 120 mm	<b>072-10036</b>	Ø 125 mm	<b>072-10039</b>	Ø 150 mm	<b>072-10037</b>	Ø 160 mm	<b>072-10040</b>	Ø 200 mm	<b>072-10038</b>
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## Accessories & options

Extraction arms FEX 5000 PRO		Extraction arms and connections FEX 5000 PRO	
	<p><b>Standing extraction arm, incl. extraction hood</b></p> <p>Includes bracket for panel feed-through</p> <p><b>Alluminium version (illustration)</b></p> <p>Ø 125 mm, length 2.0 m      <b>054-90332</b>            Ø 125 mm, length 3.0 m      <b>054-90342</b>            Ø 160 mm, length 2.0 m      <b>054-90333</b>            Ø 160 mm, length 3.0 m      <b>054-90343</b></p> <p><b>ATEX-Ausführung VA</b></p> <p>Ø 125 mm, length 2.0 m      <b>054-90330</b>            Ø 125 mm, length 3.0 m      <b>054-90340</b>            Ø 160 mm, length 2.0 m      <b>054-90331</b>            Ø 160 mm, length 3.0 m      <b>054-90341</b></p>	 <p><b>Wall bracket/connection flange</b></p> <p>with connection of extraction hose to extraction arm</p> <p>Ø 125 mm, aluminum      <b>054-90336</b>            Ø 160 mm, aluminum      <b>054-90337</b></p> <p>Ø 125 mm, ATEX VA      <b>054-90334</b>            Ø 160 mm, ATEX VA      <b>054-90335</b></p>	
	<p><b>Hanging extraction arm, incl. extraction hood</b></p> <p>Including wall bracket/suspension for mounting of the extraction arm</p> <p><b>Aluminum version</b></p> <p>Ø 125 mm, length 2.0 m      <b>054-90352</b>            Ø 125 mm, length 3.0 m      <b>054-90362</b>            Ø 160 mm, length 2.0 m      <b>054-90353</b>            Ø 160 mm, length 3.0 m      <b>054-90363</b></p> <p><b>ATEX version VA (illustration)</b></p> <p>Ø 125 mm, length 2.0 m      <b>054-90350</b>            Ø 125 mm, length 3.0 m      <b>054-90360</b>            Ø 160 mm, length 2.0 m      <b>054-90351</b>            Ø 160 mm, length 3.0 m      <b>054-90361</b></p>		 <p><b>Suction connection top Ø 200 mm (Jacob)</b></p> <p>Complete set suction connection Ø 200 mm on top of the housing cover FEX 5000, consisting of: connection nozzle with hose connector, powder-coated,</p> <p>Ø 150 mm      <b>053-4043</b>            Ø 200 mm      <b>053-3097</b></p>
	<p><b>Exhaust connection Ø 200 mm (Jacob)</b></p> <p>consisting of air outlet, 90° bend and hose connection, incl. clamps and gasket</p> <p>Ø 200 mm      <b>053-3099</b></p>	 <p><b>Exhaust-Diffusor</b> with clamp for easy installation.</p> <p>Ø 100      <b>074-50161</b>            Ø 200      <b>074-50117</b></p>	

## Accessories & options

Options FEX 5000 PRO. 1 and .2	
	<p><b>Counter plug for 8-pin socket</b></p> <p>for connection to external controllers or devices for remote control, without cable</p> <p>Piece <b>072-0621</b></p>
	<p><b>Gas and particle sensor</b></p> <p>as a supporting monitoring unit for damaged filters or saturated activated carbon. Suitable for gases: carbon monoxide, ammonia, sulfur dioxide, alcohol, gasoline.</p> <p><b>Attention:</b> The unit must be ordered together with the machine. Sensor lifespan: 1 year</p> <p>Board unit <b>072-0618</b></p>
	<p><b>Test aerosol</b></p> <p>Test spray for functional testing of gas and particle sensor</p> <p>Can <b>072-0625</b></p>

Options FEX 5000 PRO	
	<p><b>Protective coating</b></p> <p>in the upper housing area, recommended for the extraction of acid-containing vapors <b>Attention:</b> Must be ordered together with the machine</p> <p>FEX 1000.1 <b>072-0619-01</b>            FEX 3000/ .1/ .2/ VA <b>072-0619-02</b>            FEX 5000/ PRO <b>072-0619-03</b></p>
	<p><b>Frequency converter</b></p> <p>For stepless speed control as well as increasing the efficiency and performance of the turbine. Remote on/off control included.</p> <p>For FEX 5000 PRO.3: <b>053-4008</b>            For FEX 5000 PRO.4: <b>053-4009</b></p>